LESSON 3.1

NAME _____ DATE _____

# Practice A

**For use with pages 107–113**



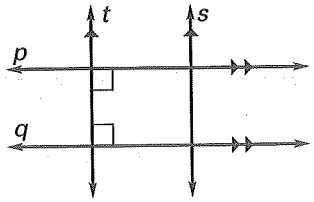
**Match the key word with its definition.**

1. parallel lines
2. perpendicular lines
3. skew lines
4. parallel planes
5. line perpendicular to a plane

A. two lines that do not lie in the same plane and do not intersect
B. two planes that do not intersect
C. two lines that lie in the same plane and do not intersect
D. two lines that intersect to form a right angle
E. a line that intersects a plane in a point, and that is perpendicular to every line in the plane that intersects it

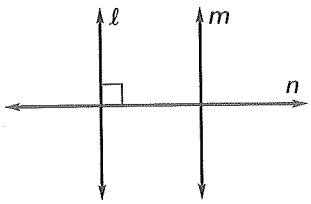
**Fill in the blank with ∥ or ⊥ to make the statement true.**

6. Line $p$ __?__ line $t$.
7. Line $p$ __?__ line $q$.
8. Line $t$ __?__ line $s$.
9. Line $t$ __?__ line $q$.

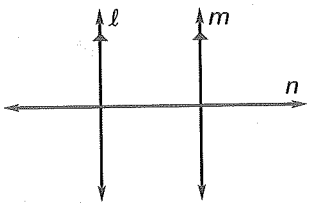



**Determine whether the lines are *parallel*, *perpendicular*, or *neither*.**

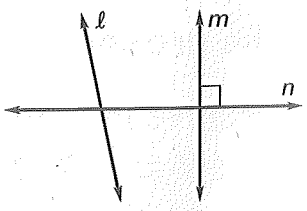
10. $\ell$ and $n$




11. $\ell$ and $m$

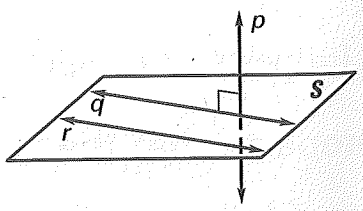



12. $\ell$ and $n$



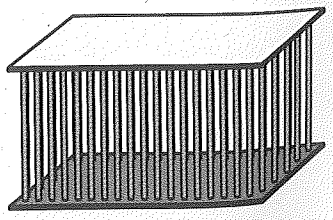

**Use the diagram at the right.**

13. Name a pair of perpendicular lines.
14. Name a pair of lines that appear parallel.
15. Name a pair of skew lines.
16. Name a line perpendicular to plane $S$.
17. Suppose line $\ell$ lies in plane $S$ and intersects line $p$. What line must be perpendicular to $\ell$?




**The drawing depicts a cricket cage with a rectangular top and bottom and small wooden "bars" for sides. Describe any parts of the cage that suggest the geometric relationships.**

18. A pair of parallel planes
19. A line perpendicular to a plane
20. A pair of parallel lines



LESSON 3.1

NAME _____ DATE _____

# Practice B

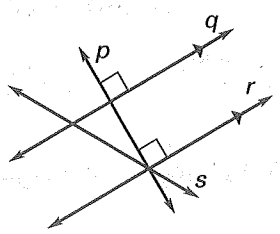
**For use with pages 107–113**



**Complete the sentence.**

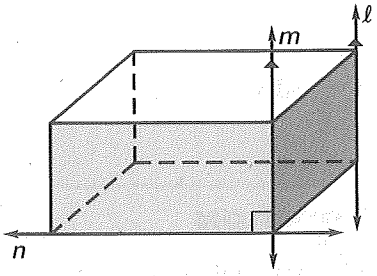
1. Two lines are parallel lines if they lie in the same plane and do not __?__.
2. Two lines are perpendicular lines if they intersect to form a __?__ angle.
3. Two lines are skew lines if they do not lie in the same __?__ and do not intersect.
4. Two planes are __?__ planes if they do not intersect.
5. A line perpendicular to a plane is a line that intersects a plane in a point, and that is perpendicular to every __?__ in the plane that intersects it.

**Use the diagram at the right. Determine whether the lines are *parallel, perpendicular,* or *neither.***



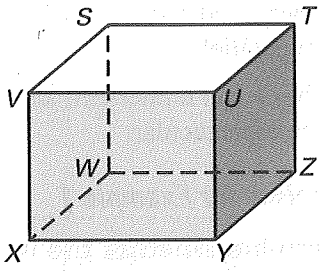

6. $p$ and $q$
7. $q$ and $s$
8. $r$ and $q$
9. $s$ and $r$

**Use the diagram at the right.**



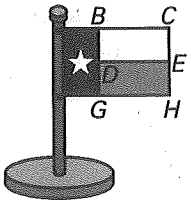

10. Name a pair of skew lines.
11. Name a pair of parallel lines.
12. Name a pair of perpendicular lines.

**Consider each segment in the diagram at the right as part of a line. Complete the statement.**




13. $\overleftrightarrow{WZ}$ and $\overleftrightarrow{XY}$ appear to be __?__.
14. $\overleftrightarrow{XV}$ and $\overleftrightarrow{VU}$ are __?__.
15. $\overleftrightarrow{WX}$ and $\overleftrightarrow{TZ}$ are __?__.
16. $\overleftrightarrow{XV}$ is __?__ to plane $STU$.
17. Plane $TUZ$ is parallel to plane __?__.

**Use the diagram of the state flag of Texas shown at the right.**




18. Name four pairs of parallel lines on the flag.
19. Name two pairs of perpendicular lines on the flag.
20. What parts of the diagram represent a line perpendicular to a plane?